2004 Water Quality
COMBINED REPORT

FORT STEWART & HUNTER ARMY AIRFIELD - GEORGIA

2004 Water Quality Report

Fort Stewart and Hunter Army Airfield's Annual Water Quality Report

The Directorate of Public Works (DPW) is pleased to present Fort Stewart (FS) and Hunter Army Airfield's (HAAF) annual Water Quality Report. This report provides you with a detailed account of all the water monitoring and testing results gathered during 2004. As always, our constant goal is to provide our patrons with safe and dependable drinking water. Additional copies of this report will be available at the Installation's Environmental Offices: FS Building 1137 and HAAF Building 1026.

Where Does My Water Come From?

Fort Stewart's main water supply comes from five municipal groundwater wells that are approximately 500-feet deep, while HAAF residents are serviced by two 500-feet deep wells. Groundwater is stored in permeable rock layers called aquifers, which are like underground lakes. Our groundwater is supplied by the *Upper Floridan Aquifer.* Before the water is distributed, the water is chlorinated to kill disease-causing organisms and fluoridated to promote dental health.

Protecting Your Water Source

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the land or through the ground, water dissolves naturally-occurring minerals and, in some cases, radioactive material.

Therefore, water can pick up substances as by-products from both the presence of animals and human activities. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial and domestic wastewater discharges, oil and gas production, or mining and farming activities.
- Pesticides or herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals (VOCs), which are by-products of industrial processes and petroleum production, and they can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be either naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which provide the same public health protection. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline (800-426-4791).

Source Water Assessment

A source water assessment has been performed on the source of your drinking water (the *Upper Floridan Aquifer*). The Wellhead Protection Plans at FS and HAAF were developed to determine the susceptibility of contaminants entering our drinking water supply and to better identify ways for protecting our water source. For further information, a copy of these Wellhead Protection Plans may be reviewed at the FS Environmental Office, 1550 Frank Cochran Dr. (Bldg. 1137), Fort Stewart, GA 31314-4927. Point of contact is Ms. Tressa Rutland, 912-767-2010.

Consumers can cut water use by 15 % through conservation practices.

Vulnerability

Both MEDDAC'S Preventive Medicine and the DPW continually monitor the drinking water for contaminants. Our water is SAFE to drink; however, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Quality Data

Below is a table that indicates the constituents that have been detected during sampling of FS and HAAF's water supply system.

DETECTED CONTAMINANTS[1]

Parameter	*MCL*	*MCLG*	*Fort Stewart*			*HAAF*			*Violation*	*Source of Contaminants*
			Detected	*Range of Detection*	*Sample Date[2]*	*Detected*	*Range of Detection*	*Sample Date[2]*		
Fluoride (ppm)	4	4	1.26*	0.14-3.77	Jan-Dec 2004	1.05*	0.28-1.91	Jan-Dec 2004	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Lead (ppb)	AL=15	0	4.9**	0-13	Aug 2004	5**	0-13	Aug 2004	NO	Corrosion on household plumbing systems; Erosion of natural deposits.
Copper (ppb)	AL= 1300	0	170**	0-250	Aug 2004	87**	0-350	Aug 2004	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

[1]The presence of contaminants does not necessarily indicate that the water poses a health risk as some contaminants naturally occur in drinking water systems.
[2]Based on most recent sampling requirement .

*Average of all detections.
**Value represents 90th percentile value of most recent sampling, see frequency below.

As mentioned, FS and HAAF monitor constantly for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. The presence of contaminants does not necessarily indicate that the water poses a health risk. Many other contaminants have been analyzed also, but were either not present or were below the detection of the laboratory equipment.

Terms and Abbreviations

Maximum Contaminant Level Goal (MCLG): Level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level (MCL): Highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Action Level (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
ppm: Parts per million; a unit of measure equivalent to a single penny in $10,000.
ppb: Parts per billion; a unit of measure equivalent to a single penny in $10,000,000.
TTHM: Total Trihalomethanes; by-products of drinking water disinfection.
Range: The range of the highest and lowest analytical values of a reported contaminant. For example, the range of an unregulated contaminant may be 10.1 (lowest value) to 13.4 (highest value). EPA requires the range to be reported for certain analytes.
n/d- Not Detected.

Georgia Water Restrictions

Despite flooding in various parts of the state, and the presence of water in many of the roadside ditches, Georgia has not forgotten the drought it has suffered through over the past several years. As a result of this, the Coastal Empire, of which Fort Stewart and Hunter Army Airfield are a part, remains under strict water usage restrictions for outdoor water use. On May 26, 2004, the Board of Natural Resources adopted Rules for Outdoor Water Use, requiring specific schedules be followed for outdoor water use irrespective of the current drought (or non-drought) condition. The EPD director cautioned that "Population growth, combined with inevitable periods of drought, make water conservation more important than ever." As a result, year-round conservation-based restrictions on outdoor water use are in effect. Currently, homes and businesses with odd-numbered addresses may water on **Sundays**, **Tuesdays**, and **Thursdays**. Likewise, homes and businesses with even-numbered or unnumbered addresses may water on **Mondays**, **Wednesdays**, and **Saturdays** while all outdoor watering will be prohibited on **Fridays**. Everyone at FS and HAAF must continue to do their part by conserving water. Changing our water use habits in ways that will help the resource sustain itself is important not only for ourselves and for the animals and plants upon which we depend for food, but also for future generations. Compared to a year ago, the outlook is brighter for our water supply but we need to continue conserving to help eliminate drought conditions for the State and to help us all in the future.

Conserving Our Water Supply

Every day throughout the world, nations are facing water problems in terms of both quantity and quality. Between 1950 and 1970, global water demand tripled and is expected to double within 35 years. Although 75 percent of the earth is covered by water, only 1 percent is available as renewable fresh water, and only about one-third of all precipitation that falls on the land goes back to the oceans by rivers and runoff. We are a nation whose water needs are rapidly rising while available supplies are shrinking; regional water crises are becoming increasingly frequent as water tables are falling and stream flow is decreasing. We can no longer take our drinking water for granted. This means that individuals, municipalities, industries, and governments must be proactive in conserving and protecting our water supplies. As Georgia continues to experience the after effects of the previous years conditions, we must realize that the consequences of such little rainfall are far-reaching, affecting humans, wildlife, and vegetation. Additionally, the severity of its impact on society is often exacerbated by the demand that people place on the water supply. Water is the most precious commodity we have on this planet; we ought not to treat it as if it were an unlimited resource. By shifting our priorities for water usage, we can prevent water scarcity. The well has run dry in many places—let's not make our community next!

Monitoring Frequencies

Our water systems use only EPA approved laboratory methods to analyze your drinking water. Our personnel take water samples from numerous locations throughout the distribution system and residents' taps; samples are then delivered to an accredited laboratory where water quality analyses are performed as follows:

Parameter	*Fort Stewart Frequency*	*HAAF Frequency*
Biological Contaminants	Once a month	Once a month
Volatile Organic Contaminants (VOCs)	Once every 3 years	Once every 3 years
Synthetic Organic Contaminants (SOCs)	Waived*	Waived*
Inorganic Contaminants (IOCs)	Once every 3 years	Once every 3 years
Lead and Copper	Once every 3 years	Once every 3 years
Nitrates/Nitrites	Once every year	Once every year
Total Trihalomethanes (TTHM)	Once a quarter	N/A**
Unregulated Contaminants	Approx. once every 3 yrs	Approx. once every 3 yrs

*The Georgia Environmental Protection Division (EPD) issued FS & HAAF a SOC monitoring waiver for 2004-2007 because EPD studies have shown that the drinking water is not vulnerable to contamination from SOCs at either Installation.
**Per EPD Rules and Regulations, TTHM sampling is not required for drinking water systems with less than 10,000 consumers.

Flushing Program – Water distribution systems typically have looped water mains that keep water flowing throughout the system -keeping it "fresh". Periodically, the DPW flushes the lines to aid the process. But, the lines that lead from the main to your individual building are flushed only when you use the water in the building. The DPW Environmental Division recommends you flush your lines for about 2 minutes after extended periods of non-use, such as after a vacation. You can help improve the quality of your water.

Questions? Call DPW Environmental Division: 767-2010

Printed on Recycled Paper